# BEET CURLY TOP VIRUS MONTHLY REPORT

CURLY TOP VIRUS CONTROL PROGRAM

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Report for March, 2015

# Program-wide notice

 Populations of beet leafhoppers (BLH) were beginning to increase toward the end of February. By the first week of March, counts jumped rapidly to 30-50 BLH per 10 sweeps and included both adults and nymphs. Some areas had counts as high as 100 BLH per 10 sweeps. Normal spring counts average about 10-12 adults and 5-6 nymphs per 10 sweeps.

The Beet Curly Top Virus Control Program (BCTVCP) began the spring spray campaign on March 9, 2015 and concluded on March 20, 2015, in Fresno and Kings Counties. Treatment began in Tumey Hills/Panoche area of Fresno County and continued south to Kettleman Hills in Kings County. One day of rain interfered with treatment operations on March 11, 2015. Two planes were used for treatment March 14<sup>th</sup>-18<sup>th</sup> in order to cover ground more efficiently.

 Kern County remained too green for treatment until the end of March. Treatment took place March 26-28, 2015 and April 2-3, 2015.

 A total of 62,375 acres were treated aerially during the spring spray campaign. The Program has not treated that many acres since 2003, when 68,250 acres were treated in the spring. A combined total from winter and spring this year amounts to 75,375 acres treated in 2015.

Roadsides and fallow fields will continue to be monitored and ground treatment will

take place as needed.

Two hundred four (204) BLH host plant samples were collected from January to March from Fresno, Imperial, Kern, Kings, Merced, Monterey, Riverside, San Joaquin and Stanislaus Counties. One hundred fifty four (154) were positive for curly top virus. 75% of the host plants sampled had curly top virus.
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 Eighty five (85) BLH samples were collected from January to March from Fresho, Imperial, Kern, Kings, Merced, Monterey, Riverside, San Joaquin, and Stanislaus Counties. Sixty six (66) were positive for curly top virus. 78% of the beet leafhoppers sampled had curly top virus.

# Fresno County

• The first week of March BLH populations and vegetation were closely monitored as BLH populations increased significantly and vegetation began to stress. Personnel finalized maps and treatment preparations. A total of 37.275 acres were treated.

finalized maps and treatment preparations. A total of 37,275 acres were treated.

BLH counts ranged from 30-50 adults and nymphs per 10 sweeps to 60-90 adults and nymphs per 10 sweeps. Some locations had counts as high as 100+ BLH adults and nymphs per 10 sweeps. Vegetation consisted primarily of pepper grass, *Plantago*, and filaree.

 Treatment took place in the Tumey Hills, Panoche, Three Rocks area (between Kamm Ave and Cantua Creek west of Interstate 5), Domengine Ranch, Chevron, the Gyp Pit area (between Manning Ave and Kamm Ave west of Interstate 5), Jacalitos Canyon, Wood, the Big "C", Warthan Canyon, Zwang, the Coalinga Nose, and Zapato Canyon. (Please see map at end of report).

Some locations contained Blunt Nosed Leopard Lizards and/or habitat, therefore

the Program was only able to treat at 50%.

Bee boxes were a nuisance during the spray campaign. Due diligence was given to locate apiary companies and owners. Many boxes did not have contact information on the box and were unregistered with the county. A few apiary companies/owners were not able to move bee boxes out of the treatment areas prior to treatment, therefore, the Program was required to leave a one mile buffer around the bee

Post treatment counts in all locations treated had a significant decline in BLH. Average post treatment counts indicated a 96-98% kill rate, however, the fields

treated at 50% indicated a 75-85% kill rate.

Many fallow fields in the flats below the hills were monitored after treatment ended each day. Fallow field surveys took place in Five Points, Three Rocks, and Sweep counts in the fallow fields were minimal. Westlands Water District, WestLake, and Sandridge areas were also monitored for BLH. Personnel will continue to monitor fallow fields and will conduct treatment (either aerially or by ground rig) when BLH counts reach 8-10 BLH per 10 sweeps.

Sticky traps can be dropped off at the Fresno office. Traps will be tracked and BLH

will be tested for curly top virus. Please call first to arrange drop off times. 559-294-

2031 or 559-353-4268

#### **Kern County**

- BLH populations and vegetation were closely monitored as BLH populations in Fresno County were increasing rapidly. BLH populations remained minimal until
- Host vegetation began to dry and stress along the south west side of Kern County causing the BLH nymphs to emerge. Treatment preparations and maps were finalized. BLH counts ranged from 1-15+ per 10 sweeps.
- Aerial treatment began March 26th and continued until March 28th. The driest fields were treated first. The Program waited a few days for the rest of the fields to dry a little more, allowing for more nymphs to emerge. Treatment continued on April 2<sup>nd</sup> and was completed on April 3<sup>rd</sup>.

Treatment took place in Kitty Care, Gardner Field, Buena Vista Hills, Valley Acres Flats, Midway South Flats, 36 Hills, Occidental Elk Hills, and McKittrick. (Please see

map at end of report).

Average post treatment counts indicated a 75-85% kill rate, because the majority of the fields were treated at 50%, due to Blunt Nose Leopard Lizard.

A total of 11,600 acres were treated during the spring spray campaign. Sticky traps can be dropped off at the Shafter office. Traps will be tracked and BLH will be tested for curly top virus. Please call first to arrange drop off times. 661-395-2914 or 559-907-4460.

#### **Kings County**

The first week of March BLH populations and vegetation were closely monitored as BLH populations increased significantly and vegetation began to stress. Personnel finalized maps and treatment preparations. A total of 13,500 acres were treated.

BLH counts ranged from 25-50 adults and nymphs per 10 sweeps. Vegetation consisted of pepper grass, Plantago, and filaree.

Treatment took place in the Kettleman Hills and Devil's Den. (Please see map at end of report).

Post treatment counts in all locations treated had a significant decline in BLH. Average post treatment counts indicated a 96-98% kill rate.

# Imperial/ Riverside County

Host plant samples that were obtained during the desert surveys in February were submitted for virus analysis. Complete results indicated thirteen (13) of the seventeen (17) samples were positive for curly top virus.

Beet leafhopper samples were collected during the desert surveys in February and were submitted for virus analysis. Four (4) of the eight (8) samples were positive for curly top virus.

#### **Merced County**

Program personnel were needed for treatment preparations and operations in Fresno, Kings and Kern counties. Survey results in Merced County were very low at the end of February, therefore surveys were postponed for Merced during March. Regular surveys will resume in April.

Seven (7) host plant samples were collected and sent for virus analysis in February. Complèté results indicated five (5) were positive for curly top virus and two (2) were

negative.

One (1) BLH sample was collected and sent for virus analysis in February. It was

positive for curly top virus. Personnel will continue to monitor BLH populations and collect both host plant and BLH samples for virus analysis.

# **Monterey County**

Program personnel surveyed the Salinas Valley for BLH populations and host plants at the end of February.

Four (4) plant samples were obtained and sent for virus analysis. Two (2) were

positive for curly top virus and two (2) were negative.

One (1) BLH sample was obtained and sent for virus analysis. It was positive for curly top virus.

#### San Joaquin County

Program personnel were needed for treatment preparations and operations in Fresno, Kings and Kern counties. Surveys results in San Joaquin County were very low at the end of February, therefore surveys were postponed in San Joaquin County. Regular surveys will resume in April.

The Tracy Defense Depot was monitored toward the end of March. There were abundant host plants, however, several sweeps were conducted on the property and minimal BLH were observed. Average counts were 4 adults and 1 nymph per

10 sweeps. Personnel will continue to monitor the property.

Personnel will continue to monitor BLH populations and collect both host plant and BLH samples for virus analysis.

#### **Stanislaus County**

- Program personnel were needed for treatment preparations and operations in Fresno, Kings and Kern counties. Surveys results in Stanislaus County were very low at the end of February, therefore surveys were postponed in Stanislaus County. Regular surveys will resume in April.
- Seven (7) host plant samples were collected and sent for virus analysis in February.

Six (6) were positive for curly top virus. One (1) was negative.

Personnel will continue to monitor BLH populations and collect both host plant samples and BLH samples for virus analysis.

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# **Spring Treatment 2015**

